
SURVEY
OF THE
A N D A M A N S.

S U R V E Y
OF THE
A N D A M A N S.

To

THE MOST NOBLE

CHARLES MARQUIS CORNWALLIS, K. G.,

Governor General, &c., in Council.

MY LORD,

To a former Report, which I had the honor to lay before your Lordship, June 19th 1789, with a general Chart and Plans of three Harbours, it is now necessary to add a sequel; having completed the circuit of the Andamans since that period, discovered an excellent Harbour, a number of Inlets, and several dangerous Coral Banks.

Having, by your Lordship's order, engaged some Artificers, Sepoys, and Laborers, and also provided the necessary Stores, I left Calcutta in the beginning of September 1789, to form a small Settlement at the Port now termed in the Chart Old Harbour, with instructions to prosecute the Survey when the Vessels could be spared from the service of the Settlement. Soon after my arrival, I made a particular Survey of Old Harbour, a plan of which I had the honor to transmit to your Lordship from thence.

On March the 20th 1790, having left Lieutenant Wales in charge at the Settlement, I sailed with the *Ranger* and *Viper*, accompanied by Captain Kyd in the *Experiment*, to prosecute the Survey, and with an intention to complete the circuit of the Andamans. Our route being from Old Harbour, up the East Coast of the Island, I shall observe the same progression in this Report.

From the North point, which forms the entrance of Old Harbour, the land rises rather abruptly to a height which may be seen above 30 miles distant: a continuation of this, in a broken ridge, in the direction of North, and to an extent of 9 miles, very pointedly marks, to the Navigator, the situation of Old Harbour. At the North extremity of the ridge, the descent is more gentle, terminating where an extensive Inlet is formed, named in the Chart Shoal Bay; it retreats to Southward, behind the high land, and to Northward, round an Island where a second mouth is formed, which abounds with Oysters. On a reference to the Chart, it will be perceived that this extensive double Inlet is too shallow for the reception of Ships.

Two miles Northward of Oyster Bay, in Latitude $11^{\circ} 58'$, is Port Meadows, a small, but convenient, Harbour. The passage in, is very narrow, South of an Island, which is situated in the entrance. The interior part of this Harbour is environed with Coral Reefs. The surrounding land in general is low, with extensive tracts of Mangrove Jungle, intersected by Creeks, and forming several Islands.

Two miles Northward of Port Meadows is situated the Eastern entrance of Middle Strait. The Bar of 17 fathoms, the intricacy and narrowness within, together with the difficulty and danger of access from Westward, render it useless for Ships of burthen, but it will afford an easy communication between the East and West Coasts of the great Island. The tides in this Strait are not so strong as might be expected. It is here proper to observe, that the Coast from Shoal Bay to Middle Strait ought not to be approached without caution closer than 2 miles, as there are some dangers, which are inserted in the Chart, extending nearly that distance from the land.

Northward, from Middle Strait, there are great inequalities in the surface of the land, some parts low and others rising very abruptly, and nearly insulated by the Sea. The direction is North-East by North, but deeply indented with Bays and Inlets. The soundings are regular, and no dangers without the depth of 10 fathoms. The distance to Strait Island is 13 miles, the direction North-East. Here the Archipelago contracts the breadth of Diligent Strait to 3 leagues,

and from Strait Island to Round Hill (which is the narrowest part,) the breadth is only one league. The number and variety of the Islands, agreeably diversified with rugged cliffs and luxuriant forests, present a prospect beautiful and picturesque. On a near approach, the Caves appear, which are inhabited by innumerable flocks of the small swallow,

which make the edible bird's nest, so much valued •
Bird Nest Caves.

by the Chinese as a delicacy and restorative. The

principal Cave is situated at the South point of Strait Island, which is rocky, but not exceeding 40 feet in height. The entrance, which is washed by the tide, is an irregular aperture of about 6 feet wide, and the same height : on advancing 30 or 40 feet, the height diminishes to 4 feet, and the breadth increases to 20. Here it is rather dark and very warm, and the top and sides of the Cave are covered with nests ; an astonishing number of birds, twittering and on the wing, whisk past the ears and eyes ; this, contrasted with the melancholy noise of the waves resounding through the gloomy Cavern, formed a very uncommon and interesting scene. The birds are probably induced to choose this situation from the Caves being inaccessible either to snakes or quadrupeds, and probably defensible against birds of prey. The nests in general are in form of the quarter of a sphere, of $2\frac{1}{2}$ inches diameter : of this shape one of the sections being firmly fixed to the rock, the other section leaves the nest open above. The substance is glutinous ; those most in estimation are white and semi-transparent. It has been doubtful, and various conjectures

Composition of the
Birds' Nests.

have been formed of what the nests are com-
posed. In smaller and more accessible Caves, I

have observed a mucilage exuding from the rock, moistened by exhalations from the Sea, which washes the lower part of those Caves. This mucilage, on being lavigated and dried, had both the texture, color, and taste of the nest ; but what removed all my doubts of this being the substance, was seeing the birds, in immense numbers, resorting to a Cave very productive of the mucilage, in the month of January, which is the season the birds build their nests. It may now be presumed, that the nests are neither of animal nor of vegetable, but of a mineral substance. But to return to my more immediate duty.

It has been already observed, that the breadth of Diligent Strait is
contracted to the breadth of one league between
Diligent Strait. Strait Island and Round Hill, but besides suffer-

ing this contraction, the soundings beyond this become very irregular,

Dangers. and there are many dangerous patches of coral

on either side; one in particular, half a league East of Strait Island, is very dangerous. It will appear in the Chart. The Spit, extending about the same distance North from Round Hill, the reefs connected with middle and North Buttons, and an extensive and dangerous Coral Bank and Reef to North-west of those Islands. These ought to deter strangers from entering Diligent Strait, except in cases of necessity; should such a measure become necessary, strict attention to the following instructions will lead through the Strait with safety. If

Directions for Diligent Strait. entering from Northward, first steer for the North

Button, which is a small Island rendered remarkable from several white cliffs; pass to right or North-West of it, not exceeding one mile distant; when abreast, steer North-East and pass Middle Button, leaving it also to North-East and observing the same distance; when the last is brought to bear East North-East, it will be necessary to alter the course to South, and to steer in that direction, until the North Button is just perceived to Eastward of Middle Button; with this mark steer about South-West by South, observing to keep the Islands in the same position, and this will lead through the narrow part of the Strait clear of the dangers of either side. A reference to the Chart will make the instructions more easily understood.

The Archipelago appears to consist of eleven Islands, of various sizes.

Archipelago, 1st Island. I speak with doubt, as the largest or fourth Island may probably be intersected by narrow channels,

which would increase the number. The South Island, which is very small, bears from Old Harbour nearly East North-East, distant 7 leagues. It is surrounded by a Coral Bank to South and East, the least water on it is 7 fathoms, except a small reef from the South extremity, which has 3 fathoms, about half a mile distant from the Island. The passage

1st Passage. between this and the second Island is clear, the ground coral, with some spots not exceeding the

depth of 5 fathoms.

On the South extremity of the second Island, there are a few cocoanut trees. It is moderately high, the major part

2nd Island.

rocky, but covered with trees, except some cliffs, which rise abruptly from the sea, at the North-East end, near the North-

West extremities. From the South point there is a reef, on which the sea breaks half a mile from the shore. A Bay is formed between the two Northern points, but it is too shallow for Ships.

2nd Passage, Archipelago.

The passage between the second and third is nearly 2 miles broad, and clear of danger, with very deep water, near the third Island.

The third Island is of a triangular form, with a considerable projection on the North side. The South point, which is

3rd Island.

acute, is formed of high white cliffs; one in particular, which is almost insulated, has in many situations the appearance of a sail. On the South-East side, there are two small Bays, and at the bottom of the Northern one, there are several cocoanut trees, where some natives usually reside. The water is very deep on this part of the Coast, about 40 fathoms, 2 miles from the land. From the North-West angle to the North point of the projection, the soundings are very regular. Close to this point, there is a narrow channel, with 7 fathoms, over a reef which extends from the points of the Island almost 3 miles in a North-East direction: between this point of the reef and another extending from an angle of the fourth Island, there is another narrow channel. By the long reef and the two Islands, a small but commodious Harbour is formed. The passage between the third and

Harbour Archipelago.

fourth Islands is shut up to Eastward by Coral Reefs. The North-East angle of the third Island must not be approached closer than 3 miles, to avoid a Coral Reef which appeared to be connected with the Island.

The figure of the fourth Island, as well as its surface, is very irregular, and the soundings round it correspond. On

4th Island.

the East side, Ships must not approach closer than 6 miles, as Minerva Bank is situated at that distance to Eastward of the Island, and on some places of the

Danger.

bank there is not more than $2\frac{1}{2}$ fathoms at low water. The East extreme of East Island, North North-West, leads to Eastward of the bank. The East side of the Island is deeply indented, and some parts behind Rugged Island may probably be insulated. Round Hill, which is remarkable from its regular shape, and being the highest land of the Archipelago, forms the North-East angle of this Island: it is seen 10 leagues distant in clear weather. Eastward

of this angle, there are several banks which run off a considerable distance: all within the dotted line in the Chart should be avoided.

The passage between the fourth and fifth Islands has deep water in the Western entrance; about the middle there is a reef from the fourth Island; and across the Eastern entrance, there is a bar of sand and coral, with only 3 fathoms on it.

The fifth Island is low, and almost bisected by the opposite Bays; on the North and South sides of the Island, the water is deep, and the soundings are pretty regular.

The Bays and Inlets, formed by the three Islands, North of Strait Island (of which Long Island is the Northern), are too confined and intricate to be of material use, though they might afford shelter in the case of being driven in by distress.

Abreast of the South end, opposite the middle, and towards the North extreme of Long Island, there are three dangerous patches of coral, about 2 miles distant from the Island. To avoid those and the large coral shoal North-West from the North Button, it will be safe not to approach that part of the Coast closer than bringing the North Button to bear North.

The small Inlet, in Latitude $12^{\circ} 29'$, is very remarkable, having a bold bluff point on either side. The entrance is narrow, and there is not sufficient depth within for Ships. There is an extensive reef from the North point, and there is rocky ground about half a league beyond it.

From this part of the Coast, to the Latitude of $12^{\circ} 45'$, the land rises rather abruptly to a considerable height. The direction of the Coast is almost due North for 5 leagues, and then trends to North North-East to Stewart Sound, with three small projecting points. Between the second and third of those, there is a Coral Bank, which extends a league to Sea, with 10 fathoms on the outer edge, and shoaling very quick from that depth to 4 and 2 fathoms.

Stewart Sound is very extensive, consisting of three large branches. The entrance, in Latitude $12^{\circ} 53'$, is to South of Sound Island, and appeared perfectly clear quite across to Passage Island, which is small and surrounded by a white sand beach. It will appear by the Chart, that the Western, or inner

branch, is well sheltered, and the soundings are regular. The outer or Southern branch is more exposed ; and two patches of coral being found, makes it probable that there may be yet others undiscovered. The Northern branch is more confined, and it has not sufficient depth for large Ships. The passage to Northward of Sound Island is too intricate for large Ships, and it requires further examination.

From Stewart Sound, the Coast runs in almost a direct line North by East. The soundings are very regular, extending from the land a league and a half to the depth of 100 fathoms. There is a break in the land one league and a half North of Stewart Sound, which has the appearance of an Inlet. From the North entrance of the Sound, the land rises abruptly from the Sea, and forms a large ridge, with a regular and gentle ascent to the South peak of the Saddle, which may be seen 20 leagues distant

in clear weather. The North peak of the Saddle is due North from the South peak, distant one

mile and three-quarters, with a considerable hollow between them. From the North peak, the descent is steep and irregular, and after forming a variety of valleys, terminates in the Southern part of Port Cornwallis. The descent from the Saddle to the Sea is so steep in some places, as to be without vegetation. There is

one Rivulet of fresh water, which has its source from the South peak, and there are appearances of several more which have not been examined.

On this part of the Coast, the soundings extend from it about 4 miles, and are perfectly regular. Craggy Island is bold, having 12 fathoms; very close without it, the North part is connected with the great Island by a reef.

The entrance of Port Cornwallis is in Latitude $13^{\circ} 17'$. Being the first opening to Northward, and so near the Saddle, marks its situation with peculiar precision.

The access is easy, being 2,500 yards broad. It is bounded on the North by a reef extending from Ross Island, and

on the opposite side by South Reef, which is separated by a narrow channel from Dundas Point. The Spit, extending from South Reef to North-East, is extremely narrow, and on one small spot there is only $3\frac{1}{2}$ fathoms at low water. Here it

may be necessary to lay a Buoy, at some future period, when frequented by large Ships. Atalanta Bay is immediately round Dundas Point, and is a good situation

A danger for large Ships. to anchor during the South-West Monsoon. St. George Island is situated nearly in mid-channel, 2 nautical miles from the entrance. It is of very small extent,

St. George Island. but surrounded by a Coral Reef, which leaves at low water a space of an irregular form, equal to an area of 300 yards square. From this Island, Ships might be much annoyed in their progress up the harbour. At the extremity of the Spit, which extends one mile West from this Island, there is a spot of coral, almost dry at low water, on which it will be necessary to have a Buoy or Beacon.

Above St. George Island, the Harbour opens to the breadth of 2 nautical miles, and the depth of one and a half, of excellent anchorage; bounded on the East by Hood Point and the East side of Minerva Bay; by the East side of Chatham Island and Shore Point on the West; and to the North by Minerva Bay, Perseverance Point, and the continuation of the Harbour. The ground is soft, tenacious clay, the depth regular, decreasing from 20 fathoms in the entrance to 10 and 9 fathoms abreast of Perseverance Point. Here the Harbour is contracted to the breadth of 1,600 yards, by the shoulder of Chatham Island to West, and a continuation of the land in a direction nearly North from Perseverance Point to the Eastward. The Harbour extends a mile North from Perseverance Point, and beyond this there is a narrow and intricate channel, which leads to a very secure and convenient Bason, adjoining the Northward point of Pil Island.

Extent of good anchorage. The shoulder and North part of Chatham Island is encompassed by a bank with 3 fathoms on the outer edge, about 300 yards from the Island. The continuation of the bank, with a gentle curve and Westerly direction, joins the West point and embraces Ariel Island, from the North part of which it takes a circular direction, enclosing another commodious Bason North of Ariel Island; and then by an Easterly course, terminates on the North-West point of Wharf Island.

Regular Soundings. The bank with 3 fathoms on the outer edge, about 300 yards from the Island. The continuation of the bank, with a gentle curve and Westerly direction, joins the West point and embraces Ariel Island, from the North part of which it takes a circular direction, enclosing another commodious Bason North of Ariel Island; and then by an Easterly course, terminates on the North-West point of Wharf Island.

North part of the Harbour. The bank with 3 fathoms on the outer edge, about 300 yards from the Island. The continuation of the bank, with a gentle curve and Westerly direction, joins the West point and embraces Ariel Island, from the North part of which it takes a circular direction, enclosing another commodious Bason North of Ariel Island; and then by an Easterly course, terminates on the North-West point of Wharf Island.

North Bason. The bank with 3 fathoms on the outer edge, about 300 yards from the Island. The continuation of the bank, with a gentle curve and Westerly direction, joins the West point and embraces Ariel Island, from the North part of which it takes a circular direction, enclosing another commodious Bason North of Ariel Island; and then by an Easterly course, terminates on the North-West point of Wharf Island.

Mid Bank. The bank with 3 fathoms on the outer edge, about 300 yards from the Island. The continuation of the bank, with a gentle curve and Westerly direction, joins the West point and embraces Ariel Island, from the North part of which it takes a circular direction, enclosing another commodious Bason North of Ariel Island; and then by an Easterly course, terminates on the North-West point of Wharf Island.

South Bason. The bank with 3 fathoms on the outer edge, about 300 yards from the Island. The continuation of the bank, with a gentle curve and Westerly direction, joins the West point and embraces Ariel Island, from the North part of which it takes a circular direction, enclosing another commodious Bason North of Ariel Island; and then by an Easterly course, terminates on the North-West point of Wharf Island.

Wharf Island. The bank with 3 fathoms on the outer edge, about 300 yards from the Island. The continuation of the bank, with a gentle curve and Westerly direction, joins the West point and embraces Ariel Island, from the North part of which it takes a circular direction, enclosing another commodious Bason North of Ariel Island; and then by an Easterly course, terminates on the North-West point of Wharf Island.

Wharf Island. The bank with 3 fathoms on the outer edge, about 300 yards from the Island. The continuation of the bank, with a gentle curve and Westerly direction, joins the West point and embraces Ariel Island, from the North part of which it takes a circular direction, enclosing another commodious Bason North of Ariel Island; and then by an Easterly course, terminates on the North-West point of Wharf Island.

Wharf Island. The bank with 3 fathoms on the outer edge, about 300 yards from the Island. The continuation of the bank, with a gentle curve and Westerly direction, joins the West point and embraces Ariel Island, from the North part of which it takes a circular direction, enclosing another commodious Bason North of Ariel Island; and then by an Easterly course, terminates on the North-West point of Wharf Island.

Wharf Island. The bank with 3 fathoms on the outer edge, about 300 yards from the Island. The continuation of the bank, with a gentle curve and Westerly direction, joins the West point and embraces Ariel Island, from the North part of which it takes a circular direction, enclosing another commodious Bason North of Ariel Island; and then by an Easterly course, terminates on the North-West point of Wharf Island.

Wharf Island. The bank with 3 fathoms on the outer edge, about 300 yards from the Island. The continuation of the bank, with a gentle curve and Westerly direction, joins the West point and embraces Ariel Island, from the North part of which it takes a circular direction, enclosing another commodious Bason North of Ariel Island; and then by an Easterly course, terminates on the North-West point of Wharf Island.

Within the margin already described, there is a very extensive Mud Bank, portion of which appear at low water. It occupies a space of about 4 square miles. This Flat, termed in the Plan Shoal Bay, is situated to Westward of Pil, Chatham and Ariel Island; it is of an irregular form, with an extensive branch to the North-West, and several Inlets to Southward.

The relative situations will be better comprehended by an examination of the Plan, by which it will appear that the two Basons are well situated to accommodate Ships under repair, and capable of being strongly defended. It will also be perceived, that the range, of the Harbour

Basons well situated for defence.

Both Monsoons favorable for entering or quitting the Harbour.

having a North-West direction, that the prevailing winds (North-East and South-West) will be fair for either entering or quitting this Port.

Twelve hundred yards above Perseverance Point, there is a spring of fresh water, which afforded, in the month of February, at the rate of 150 tons per day, and it appeared to have suffered no sensible diminution as late as the 6th of April 1793, which is the latter part of the dry season. This spring is situated in a very convenient part of the Harbour, and issues out of the ground about 20 feet above high-water mark. Adjacent there are two rills, and near Hood Point, another very productive spring.

Fresh water.

The land in the vicinity of the Harbour abounds with timber trees of excellent quality, and fit for all the various parts of Ships.

Abounds with Timber.

Soil and Climate.

The soil and climate promises all that can be expected from the most happy tropical situation.

From Port Cornwallis to the North extremity of the Great Island, and round the group of Islands which encircle it, several dangers have been lately discovered, which will demand attention in the Navigator to avoid.

East Coast Great Andaman.

The Table Islands bear from Ross Island North 13° East, distant 7 miles; they are environed to Eastward with an extensive Coral Reef, and there is, besides this, a ledge of rocks, some of which just appear; they bear from the East extremity of the Islands South South-East, distant one mile and a half; and there are 24 fathoms—a very small distance—with

Table Islands, Reef and Ledge of Rocks.

out the rocks. From extreme East of Table Islands, Pocock Island bears North 18° West, distant 8 miles. The soundings are irregular, with several spots of sand and coral, particularly within the opposite bearings of the Islands: some spots so little as 4 fathoms, at the distance of a league from the land. Without the opposite bearings of the Islands, the soundings are more regular, deepening to 30 and 35 fathoms, about 2 leagues from the land. The Navigator must not be deceived by this false appearance; for immediately without the depth of 35, the water suddenly shoals to 20, which depth will be found within 100 yards of Union Ledge, on which there is

Union Ledge very only one fathom at low water. The greatest extent of this very dangerous Ledge is in the direc-

tion of the meridian, about half a mile; the breadth about 300 yards. The soundings are a little irregular even to Eastward of this Ledge, there being 20 fathoms immediately without it, and beyond that depth, so little as 12 and 10 fathoms, whence it deepens to 30, 50 and 76; and at the distance of 4 miles East of the

Situation of Union Ledge, there is no ground with 110 fathoms. Ledge.

From Union Ledge, Pocock Island bears West 25° North, distant 7 miles; the Eastern Table Island South 30° West, the same distance. On referring to the Chart, it will appear, that many

Irregular soundings. lines of soundings have been run between Union and Jackson Ledges, and that the depth is very unequal, it therefore should be avoided, though no dangers have been yet discovered in that space.

Jackson Ledge is situated one league East of the North extreme of East Island. The extent, in a South-East direc-

Jackson Ledge. tion, is nearly half a mile, and the breadth a quarter mile, and the least water on it is one fathom. South-West from this, at the distance of one mile, is situated

Ranger Ledge. Ranger Ledge, a small circular spot of 100 yards diameter, with only 4 feet on the shoalest part. It bears from the North extreme of East Island East by North, and distant from it 2 miles. To Northward of those Ledges, I was very particular in sound-

ings, and found very considerable inequalities in the depth, on some spots not more than 5 fathoms; but by a very diligent look-out from the mast-head, I have no

reason to think that there is any less than that depth to Northward of Ranger Ledge. Those alarming inequalities of depth do not extend above 2 miles to Northward of Ranger Ledge, and there is a continuation of similar soundings to Westward, extending the same distance round East and Land-fall Islands. This will be found more clearly expressed in the Chart, by a dotted line encompassing the irregularity of soundings, as well as the dangers, with a written explanation.

It will be observed by the Chart, that there is a good and deep passage between East Island and Ranger Ledge.
Passage within the Coral Ledges.

For this passage no further direction will be necessary, but observing to round East Island very close to avoid the Ledges to Eastward, the distance of Pocock Island would render the bearings too indeterminate for a mark to avoid the Ledges. During the South-West Monsoon, I think it would be improper to attempt this passage; for a Ship rounding East Island, as close as it can be done with safety, would hardly weather Jackson and Union Ledges.

Cleugh Passage is formed by the North extremity of the great Island, and North-West Island to the South, and with
Cleugh Passage Land-fall Island to the North. There is an extensive reef nearly in the middle, part of which appears above water. On either side of this reef there is deep water, and it will be the safest mode to pass it pretty close, as a mark to avoid more hidden dangers, which will appear in the Chart. The ground in general is coral, with very alarming over-falls, and the tides are irregular. Such passages cannot be recommended, though a knowledge of them may prove useful in particular cases.

North-West Island is low, surrounded with a Coral Reef, some parts
West Coast Great Andaman to Interview Island probably extending half a mile beyond high-water mark; it is otherways bold. The soundings Westward from this Island to the edge of the bank are regular, the depth increasing from 12 to 16 fathoms the first 2 leagues; in the remaining it deepens to 40, which is close to the edge of the bank.

Cape Thornhill is a round Hill of a regular form, and has the appearance of being insulated by a narrow channel.

West from the Cape, and distant 2 miles, is Cliff Island, which is steep and rocky, and appears bold to Westward. Two miles to South-

ward, there is a low Island of small extent, surrounded by a reef ; between this and Cliff Island, there appears to be very shallow water.

South-West from Cape Thornhill, at the distance of 2 leagues, there is another promontory, but it is flat and low, and it also has the appearance of being insulated, particularly so when viewed from South-West, for on the South side there is an extensive Inlet. This Inlet has an Island near the entrance, and several extensive Coral^d Reefs, which appear to bar the entrance.

On this part of the Coast, the ground in general is coral, with very great over-falls. South, South-West from the last Inlet, and distant 2 leagues, there is a dry rock, which is situated about one league from the Coast. Two leagues further, and nearly in the same direction, there is a small flat Island about the same distance from the great Island. The line of the Coast from the above Inlet, in Latitude $13^{\circ} 24'$, is nearly in the direction of South, with two projections, in Latitude $13^{\circ} 20'$ and $13^{\circ} 16'$, and there is an appearance of an Inlet East by North from North Reef Island.

The passage to Eastward of North Reef Island to Port Andaman has deep water near the Island ; but at the distance of 2 miles to South-East, there is rocky ground, with alarming over-falls in the soundings, which will appear in the Chart.

From North Reef Island, which is in Latitude $13^{\circ} 0' 6''$, the bank of soundings extend near 6 leagues, and near the edge there is an extensive Coral Bank, reaching from Latitude $13^{\circ} 0' 4''$ to $13^{\circ} 25' 30''$. Lieutenant Wales, who examined it in the *Ranger*, could find nothing less than 7 fathoms ; but from the irregularity of the sounding and quality of the ground, there probably may be less water. I have an extract from Captain Nimmo, in which he mentions to have had so little as $4\frac{1}{2}$ near the North end of this bank. It certainly should be avoided by large Ships.

Having in a former Report began my narrative with an account of Port Andaman, and continued it progressively along the West Coast and round to Old Harbour, this finishes the circuit of the Andamans.

I have, in a former Report, noticed the very rude and uncivilized state of the Natives, which I find now to be general. I gave instances of their hostile inveteracy to stran-

gers. These prejudices may have originated from having been in a state

Cause of their abhor-
rence of strangers.

of slavery; but there are certain and recent causes
for the continuance of this unfortunate propensity.

Several of the Natives have been carried off to gratify an unwarrantable
curiosity, and others entrapped and sold for slaves. Unless those alleviat-
ing circumstances are considered, a most unfavorable and unjust opinion

Happy disposition.

would be formed of the Natives. Our intercourse
with those in the neighbourhood of Old Harbour

afforded frequent opportunities of observing, that they are susceptible
of the most tender impressions, and that, their dispositions are
happy.

It now remains to make some observations on the passage between the
Little Coco and Land-fall Island.

The Little Coco bears from the centre of East Island North 22°
30' East, distant 19 miles, and from the North
Passage between the
Coco and the Andamans. point of Land-fall Island North 32° 30' East, dis-
tant 20 miles. It is connected with the Andamans by a bank of
soundings, the edges of which are nearly parallel to the line of bearings
between it and the North extremity of Land-fall Island, and are also
nearly equi-distant from it. The major part of the shoal water is, how-
ever, on the East side of the line.

Union, Jackson, and Ranger Ledges afford a striking example of the
dangers always to be dreaded where the bottom is coral.

I have already observed, that for the distance of 2 miles to North-

Examination of the
Passage.

ward of Jackson and Ranger Ledges, that the
depth was unequal. I made a very particular

examination further to Northward, by sounding and a good eye at the
mast-head. To my great satisfaction, I found no abrupt inequalities in

A safe passage.

the depth, with a bottom of sand quite across the
bank, and there was no appearance of shoal

water from the mast-head. Those lines of soundings only, that I can
have a certain dependence on, are inserted in the Chart. It will be
perceived that North by East from the Little Coco, and distant 3
leagues, there is so little as 12 fathoms, but by re-crossing several times,
I could find nothing less than that depth.

I shall close this Report with the following observations, which may prove useful to Ships bound for Port Cornwallis, during the South-West Monsoon. This stormy season generally commences in May, with cloudy squally weather attended with heavy rain. The first and latter parts are the most violent. July and August have frequent intervals of two or three days' good weather.

Ships from the Coast of Coromandel should gain the parallel of $13^{\circ} 39'$, which is the Latitude of the North extremity of Land-fall Island, and on a near approach should keep in $13^{\circ} 43'$, but not to Northward. In this last parallel (as will be observed by a reference to the Chart) Ships may cross the bank with safety. If there should be a mistake in the Latitude, and it prove to be the Southward, even as much as 6 or 7 miles, it will be attended with no danger and little inconvenience, provided due attention be paid. If the land should be seen before soundings are obtained (which will always be the case, in the day, with clear weather,) nothing more will be necessary than to bear up to that course, which may be a point and a half to Northward of the most Northerly land seen, and round Land-fall Island at the distance directed. When approaching this land in the

Making the bark of night, it will be necessary to have the Ships under soundings in the night. such sail as to admit of sounding with 25 or 30 fathoms of line, and to be prepared instantly to bear up on having ground. Should the night be good, and the weather so clear as to see 3 or 4 miles, after sounding 30 or 25 fathoms, Ships in such cases might (with caution) cross the bank. But should the weather prove

A case of dark squally dark and squally, it would be necessary on having weather. ground immediately to bear up and haul by the wind to North-West. After deepening the water to 50 fathoms or losing soundings, the Ship might be put on the other tack, and by short boards kept nearly stationary till day-light.

In such cases as the preceding, it would be of great utility were there a Light-House on the North extremity of Land-fall Island. The Northern point is obtuse, with a small eminence, that appears to me an admirable situation.

Utility of a Light
House on the North ex-
tremity of Land-fall Is-
land.

A Light House erected on this spot would be an
excellent mark to make the land, and to avoid
those dangerous Coral Ledges to Eastward.

I am, with great respect,

My Lord Marquis,

Yours, &c.,

(Signed) ARCHIBALD BLAIR.

CALCUTTA, }
May 27th 1793. }

